

Remarks

The Applicants appreciate the Examiner taking time to participate in a phone conference on June 22, 2006. Claims 1-51 are currently pending in the present application. Of these pending claims, claims 1, 17, 35, 40, and 47 are independent claims. Claims 2-16, 18-34, 36-39, 41-46, and 48-51 depend from these claims, respectively. As the Court noted in *In re Fine*, “dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious.” 5 U.S.P.Q.2d 1569, 1600 (Fed. Cir. 1988). Using this same rationale, dependent claims cannot be anticipated if the independent claims from which they depend are not anticipated. Since the Applicants respectfully assert that these independent claims are allowable, dependent claims 2-16, 18-34, 36-39, 41-46, and 48-51 are also allowable. Thus, Applicants respectfully request allowance of all the pending claims in view of the subsequent remarks regarding the above-mentioned independent claims.

I. Claim Amendments

As discussed in the phone conference, Applicants have amended independent claims 1, 17, 35, 40, and 47. Applicants amended claims 1, 17, 35, 40, and 47 to clarify what is meant by “visual object.” Support for these amendments can be found in the detailed description at least in paragraphs 12, 13, 17, and 19. Claims 1 and 35 have been amended to clarify the calculation of signal-to-noise ratios. Support for these amendments can be found in the detailed description at least in paragraphs 18, 19, 69, and 70.

II. 35 U.S.C. §102 Rejections – Claim 17

In the Office Action mailed December 27, 2005 (“Office Action”), claims 17, 18, 25, 26, and 27 were rejected under 35 U.S.C. §102(b) as unpatentable over U.S. Patent No. 6,025,880 (“*Nakagawa*”). Since claim 17 is independent and claims 18 and 25-27 all depend from claim 17, the comments below will focus on independent claim 17.

A proper rejection of a claim under 35 U.S.C. § 102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983). The test is the same for a process. Anticipation requires identity between the claimed process and a process of the prior art. The claimed process, including each step thereof, must have been described or embodied, either expressly or inherently, in a single reference. *See, e.g., Glaverbel S.A. v. Northlake Mkt'g & Supp., Inc.*, 45 F.3d 1550, 33 USPQ2d 1496 (Fed. Cir. 1995). Those elements must either be inherent or disclosed expressly. *See, e.g., Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 7 USPQ2d 1057 (Fed. Cir. 1988); *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 2 USPQ2d 1051 (Fed. Cir. 1987). For anticipation, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. *See, e.g., Scripps Clinic & Res. Found. v. Genentech, Inc.*, 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991). In summary, the single prior art reference must properly disclose, teach or suggest each element of the claimed invention. Moreover, “every element of the claimed invention must be literally present, arranged as in the claim. ... The identical invention must be shown in as complete detail as is contained in the patent claim.” *See, e.g., Richardson v. Suzuki Motor Company Co.* 868 F.2d 1226, 1236 (Fed. Cir. 1989).

Nakagawa discloses a system that can determine an input picture resolution and encode the input picture at the determined resolution (See *Nakagawa*, col. 2, lines 1-10). Because *Nakagawa* addresses resolution, and not display size, *Nakagawa* does not anticipate claim 17. Contrary to page 2 of the Office Action, the Applicants do not disclose that a display size is a resolution. Resolution is the basic measurement of the amount of intrinsic information in an image scene or visual object. Typically resolution is defined by a pair of numbers (i.e., 640 x 480), which indicate the number of pixels displayed horizontally multiplied by the number of pixels displayed vertically. The higher the number the better, as there is more ability to display more details. Resolution is an attribute of a visual object (such as a frame or a video stream) that is determined at an encoder. The visual object is encoded based on an input with a specific resolution and an output number of bits for efficient transmission or storage. When encoded video is delivered, it has the resolution determined at the encoder, regardless of the compression method or the ultimate display size.

Display size (accomplished through, for example, pixel repetition, rendition, or interpolation) is not resolution. A display size refers to the potential use of, for example, pixel repetition to display a visual object (such as a frame or a video stream) at a certain visual size, **regardless** of resolution. The display size is determined at the display device or the decoder (versus the encoder for resolution). For example, a 640 x 480 pixel resolution video can be displayed on a screen at any display size (i.e. full screen, 640 x 480, or 1280 x 960). The display size determined impacts the amount of noise perceived by the viewer. For example, a video encoded at 640 x 480 may be able to be displayed at full screen with little noise, or the video may be so noise laden, that it must not be displayed at a very large display size (i.e. a display size like 1280 x 960 that is greater than its original/intrinsic resolution). As described in the detailed description in paragraphs 9 and 62, the

Applicants' methods and systems can create a display size by "repeating pixels or performing linear extrapolation..." *Nakagawa* does not disclose the determination or creation of a display size.

Since *Nakagawa* does not teach or suggest a method for calculating an optimum display size, claim 17 is not anticipated for at least the reason that *Nakagawa* does not teach every claim element. Thus, Applicants respectfully request allowance of pending claims 17-18 and 25-27.

III.35 U.S.C. §103 Rejections

For a *prima facie* case of obviousness, there must be a motivation to modify the reference or combine reference teachings, **and** the cited references must teach or suggest all of the claim limitations **with** a reasonable expectation of success. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). In order for a reference to be effective prior art under 35 U.S.C. § 103, it must provide a motivation whereby one of ordinary skill in the art would be led to do that which the applicant has done. See *Stratoflex Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1535, 218 USPQ 871, 876 (Fed. Cir. 1983). The Patent Office has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness, which can be satisfied only by showing some objective teaching in the prior art would lead one to combine the relevant teachings of the references. See *In re Fine*, 837 F.2d 1071, 1074 (Fed. Cir. 1988). It is axiomatic that in order for a *prima facie* case of obviousness to be properly presented, a motivation to combine the references either must exist expressly or implicitly. See *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998).

A. *Nakagawa* and *Lau* – Claims 1 & 35

In the Office Action, claims 1-5, 9-12, 15-16, 19, 31-35, 39, and 51 were rejected under 35 U.S.C. §103 as unpatentable over *Nakagawa* in view of U.S. Patent No. 6,681,043 ("*Lau*"). Since claims 1 and 35 are independent and claims 4-5, 9-12, 15-16, 19, 31-34, 39, and 51 depend

from these independent claims, the comments below will focus on these independent claims. As detailed below, a proper *prima facie* case of obviousness has not been presented. The rejections should be withdrawn for at least this reason.

Nakagawa in view of *Lau* does not make independent claim 1 or independent claim 35 obvious for at least the reason that all the claim limitations have not been met. As mentioned above with reference to claim 17, *Nakagawa* does not teach or suggest a method for calculating an optimum display size. Furthermore, as noted in the Office Action on page 4, *Nakagawa* does not teach calculating one or more signal-to-noise ratios (SNR's) as found in claims 1 and 35. Applicants further put forth that, since *Nakagawa* does not teach or suggest calculating one or more SNR's, *Nakagawa* cannot teach or suggest calculating a coding difficulty value based on SNR's.

Like *Nakagawa*, *Lau* neither teaches nor suggests any of the limitations in claim 1 or claim 35. *Lau* does not teach or suggest calculating a coding difficulty value based on SNR's. *Lau* teaches a user interface for manipulating video. A manipulation in *Lau* is the use of SNR's to determine a variance in SNR's to allow an operator to select a higher number of bits to increase image quality (See *Lau*, col. 3, lines 13-28). While this is a calculation of SNR's, this is not calculating a coding difficulty value as a function of SNR's as recited in claims 1 and 35.

Claims 1 and 35 are not obvious over *Nakagawa* in view of *Lau*, as the combination of *Nakagawa* and *Lau* do not teach or suggest all the limitations of claims 1 or 35. Thus, Applicants respectfully request allowance of pending claims 1-5, 9-12, 15-16, 19, 31-35, 39, and 51.

B. *Bae* and *Lau* – Claim 40

In the Office Action, claims 40, 43, and 45-46 were rejected under 35 U.S.C. §103 as unpatentable over U.S. Patent No. 6,256,045 ("*Bae*") in view of *Lau*. Since claim 40 is independent

and claims 43, and 45-46 depend from this independent claim, the comments below will focus on independent claim 40. As detailed below, a proper *prima facie* case of obviousness has not been presented. The rejections should be withdrawn for at least this reason.

Bae in view of *Lau* does not make independent claim 40 obvious for at least the reason that all the claim limitations have not been met. The invention of *Bae* addresses prevention of memory overflow in a decoder. While *Bae* uses the term “display size,” *Bae* refers to display size as the amount of data to be stored in memory (See *Bae*, abstract). *Bae* equates display size to memory size because what is in memory is displayed. *Bae* refers to display size as a number of pixels, an aspect ratio, or a data transmission rate (See *Bae*, col. 6, lines 5-7). As can be seen in *Bae* FIG. 2, block 204, *Bae* compares a source size and a display size. Source size is the bit rate coming in to a decoder and the display size is the memory size. *Bae* does not teach or suggest a system for calculating an optimum display size for a visual object (see above for a discussion of display size).

Like *Bae*, *Lau* neither teaches nor suggests any of the limitations in claim 40. As noted in the Office Action on page 8, *Bae* does not teach a display device for displaying a message indicating the optimum display size for the encoded visual object. However, *Lau* does not correct the deficiencies of *Bae*. *Lau* is directed to a user interface for video editing. *Lau* does not teach or suggest a display device for displaying a message indicating the optimum display size for the encoded visual object. FIG. 6 of *Lau* does not contain a message indicating an optimum display size; rather FIG. 6 displays various SNR information regarding a video object. As described and claimed in the present application, the system is capable of displaying a message to a viewer of a visual object (for example, a frame or a video stream) indicating that the video is playing at the optimal display size. The message can not only inform the viewer of the optimal display size, the message can present the

viewer with an option to view, or not to view, the video at the optimal display size (See detailed description, paragraphs 15 and 17).

Claim 40 is not obvious over *Bae* in view of *Lau*, as the combination of *Bae* and *Lau* do not teach or suggest all the limitations of claim 40. Thus, Applicants respectfully request allowance of pending claims 40, 43, and 45-46.

C. Nakagawa and Klosterman – Claim 47

In the Office Action, claims 47-50 were rejected under 35 U.S.C. §103 as unpatentable over *Nakagawa* in view of U.S. Patent No. 6,469,753 (“*Klosterman*”). Since claim 47 is independent and claims 48-50 depend from this independent claim, the comments below will focus on independent claim 47. As detailed below, a proper *prima facie* case of obviousness has not been presented. The rejections should be withdrawn for at least this reason.

As detailed above, *Nakagawa* does not disclose a method for calculating an optimum display size. Furthermore, as noted in the Office Action on page 10, *Nakagawa* does not teach displaying a message indicating the optimum display size for the encoded visual object.

Like *Nakagawa*, *Klosterman* neither teaches nor suggests any of the limitations in claim 47. *Klosterman* does not correct the deficiencies of *Nakagawa*. *Klosterman* relates to a program guide to display a schedule to a user. *Klosterman* describes providing messages to a user about upcoming programs, but not messages about optimum display size (See *Klosterman*, col. 8, lines 26-50). *Klosterman* discloses the use of “Picture in a Picture” (PIP), whereby the smaller picture is a size that allows “decent video display” (See *Klosterman*, col. 8, lines 34-38). This, however, is neither calculating an optimum display size, nor providing a message regarding optimum display size. In fact, there is nothing to indicate in *Klosterman* that the PIP is displayed at an optimal display size.

Claim 47 is not obvious over *Nakagawa* in view of *Klosterman*, as the combination of *Nakagawa* and *Klosterman* do not teach or suggest all the limitations of claim 47. Thus, Applicants respectfully request allowance of pending claims 47-50.

IV. Conclusion

An anticipation rejection is unfounded in the absence of a teaching of all the claim limitations. As described above, *Nakagawa* does not teach all the claim limitations of claim 17. Applicants therefore respectfully assert that claims 17-34 are in condition for allowance and request removal of the anticipation rejection.

An obviousness rejection is unfounded in the absence of a suggestion/motivation, a teaching or suggestion of all of the claim limitations, or a reasonable expectation of success. As described above, the various combinations of *Nakagawa*, *Bae*, *Lau*, and *Klosterman* do not teach or suggest all of the claim limitations of independent claims 1, 35, 40, or 47. Since the requirements for obviousness under 35 U.S.C. 103(a) have not been satisfied, the Applicants respectfully assert that claims 1-16 and 35-51 are in a condition for allowance and request removal of the obviousness rejections.

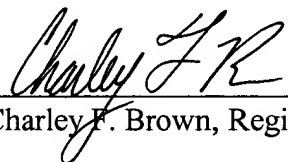
In light of the above-mentioned remarks, claims 1-51 are in a condition for allowance. Consequently, the Applicant respectfully requests that the claims be allowed and the current application sent to issuance.

A fee of \$510.00 for a three-month extension of time filing fee is due. The Commissioner is hereby authorized to apply this fee and any additional fees which may be required, or credit any overpayment to Deposit Account No. 14-0629.

The Examiner is invited and encouraged to contact directly the undersigned if such contact may enhance the efficient prosecution of this application to issue.

Respectfully submitted,

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